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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/637,508	08/11/2000	Markku Vehvilainen	915-374	7877

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WARE FRESSOLA VAN DER SLUYS &  
ADOLPHSON, LLP  
BRADFORD GREEN BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

EXAMINER
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LEE, Y YOUNG

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/637,508

Applicant(s)

VEHVILAINEN, MARKKU

Examiner

Y. Lee

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (EP 0 687 112 A2) in view of Wells et al (6,310,915).

Takahashi et al, in Figures 2-7, 10-13, and 15-17, discloses an image conversion apparatus that is substantially the same method and arrangement for reducing the volume or rate of an encoded digital video bitstream that comprises both independently encoded pictures I and pictures encoded using prediction from other pictures (P and B) as specified in claims 1-21 of the present invention, characterized in that the arrangement comprises means for partly decoding 201 independently encoded pictures I and pictures encoded using prediction from other pictures (P and B) from the encoded digital video bitstream, means of reducing 202 the amount of bits in partly decoded data from independently encoded pictures I and partly decoded data from pictures encoded using prediction from other pictures (P and B); and means for re-encoding 203 the partly decoded data from independently encoded pictures I and partly decoded data from

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pictures encoded using prediction from other pictures (P and B) in which the amount of bits is reduced, a variable length decoder 201 for decoding the variable length coding of the variable length encoded, weighted and quantized DCT coefficient matrices 180; a low pass filter (202, 301) with multitude of different filtering functions upon different coefficient groups within a single DCT coefficient matrix, wherein each filtering function (202, 301) is dependent on the contents of the DCT coefficient matrix which is filtered to represent the weighted and quantized DCT coefficient matrices; and a requantization block 140 arranged to divide a DCT coefficient matrix by a certain second variable value.

It is noted Takahashi et al differs from the present invention in that it fails to particularly disclose using a bitstream analyzer to separate different types of data in the encoded digital video bitstream into component bitstreams. Wells et al however, in Figure 1, teaches the concept of such well known method arranged to separate different types of data 14 in the encoded digital video bitstream 12, comprising virtual buffer verifier values 26 from an MPEG-2-encoded digital video bitstream 12.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having both the references of Takahashi et al and Wells et al before him/her, to incorporate the common separate analyzing method as taught in Wells et al before the decoding arrangement in Figure 4 of Takahashi et al in order to enable pre-transcoding gathering of statistics for adjusting bit budgets for individual video signals even when the channel rate allocated to carrying the re-encoded video

signal does not vary, thereby providing the moving picture signal decoding system capable of operating in higher speed.

4. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al in view of Wells et al as applied to claim 1 above, and further in view of Bock (WO 97/47128).

Although Wells et al teaches separating different types of data in the encoded digital video bitstream into component bitstreams, it is noted Wells et al differs from the present invention in that it fails to particularly teach a type of untouched data as specified in claims 22 and 23. Bock however, in Figure 1, illustrates the concept of such well known untouched output (MV, modes, etc.) in addition to other output (e.g. Q and QP) that is also provided to a corresponding input of a multiplexer 14.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having all three of the references of Takahashi et al, Wells et al, and Bock before him/her, to exploit the common step of using a bitstream analyzer 11 to separate an untouched type of data, as taught by Figure 1 of Bock, in the rate reduction arrangement of Takahashi et al and Wells et al, in order to efficiently process the digital video bitstream without the burden of auxiliary information such as motion vectors and modes information, thus conserving the overall bandwidth requirement of the encoding device.

#### ***Response to Arguments***

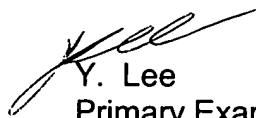
5. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (571) 272-7334. The examiner can normally be reached on (571) 272-7334.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Y. Lee  
Primary Examiner  
Art Unit 2613

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